Missouri Department of Natural Resources

MO Risk-Based Corrective Action for Petroleum Storage Tank Sites - Analysis of Ethanol and Methanol in Groundwater

Hazardous Waste Program technical bulletin 6/2005

When do I need to sample soil and groundwater for ethanol and methanol?

Soil samples

When petroleum containing ethanol or methanol is released to the environment, the ethanol and methanol tend to readily migrate through soil into groundwater. Therefore, under the Missouri Risk Based Corrective Action (MRBCA) process, soil samples need not be analyzed for ethanol or methanol.

Groundwater samples

If a petroleum release has or is likely to affect groundwater, in addition to other contaminants of concern, under certain circumstances, groundwater samples must be analyzed for ethanol and methanol. Groundwater samples must be analyzed for ethanol and methanol *only* when the groundwater is being used, or is likely to be used, as drinking water in the future. If the groundwater is not being used in a home or business, groundwater samples need not be analyzed for ethanol and methanol.

What method do I use to analyze groundwater samples for ethanol and methanol?

Use direct injection gas chromatography to analyze groundwater samples for ethanol and methanol. For other gasoline oxygenates, use Method 8260B.

What is the effective date of these provisions?

The provisions described in this technical bulletin regarding the analysis of ethanol and methanol have been in effect since 2004. However, the MRBCA guidance document has not yet been revised to include these provisions, though that process is underway and will be complete in 2005. Therefore, until this technical bulletin became available, the provisions have been in place for some time as “unwritten policy.”

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